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Pull Type Gang Mower

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PULL TYPE GANG MOWER

CROSS REFERENCE TO RELATED APPLICATION

This is a continuation-in-part of U.S. patent application serial number 10/293,640, filed on November 13, 2002 and entitled "Pull Type Gang Mower."

FIELD OF THE INVENTION

The present invention relates to gang-type lawn mower systems and more particularly to a pull-type frame structure having a series of mower decks secured thereto with each mower deck powered by a single power source.

BACKGROUND OF THE INVENTION

Many homeowners are fortunate to own one to five acre tracts of land. In many of these cases, these homeowners will have lawns as large as one to four acres. These large lawns are certainly picturesque and add a quality to a home or homestead that is desirable. But like other things of beauty, a large lawn comes with a price. The time and effort required to cut such lawns can be burdensome.

The homeowner has a number of options. First, these large lawns can be cut with walk-behind mowers, either propelled or unpropelled. In either case, cutting a large lawn with a walk-behind mower is extremely time-consuming. Another option entails the use of a conventional garden tractor. However, again a conventional garden tractor will only cut a swath so wide and therefore the homeowner will find him or herself riding a garden tractor for hours. There are faster ways to cut large lawns. One is to employ a small farm tractor with a large rotator mower that would be attached either under the belly of the tractor or behind the tractor. Of course, there is an expense involved in purchasing a small farm tractor and a sizeable rotator

cutter. Further, many homeowners with large lawns do not have outbuildings or garage space to store a small farm tractor.

There have been attempts at designing gang-type lawn mowers that could be pulled by a garden tractor or a small farm tractor. See for example, the disclosures found in the following U.S. patents: 5,771,669; 5,133,174; 5,851,020; 4,926,621; 3,514,126; 4,870,810; and 3,608,284. The disclosure of these patents is expressly incorporated herein by reference. Most of the gang-type mower systems disclosed in these patents utilizes a series of lawn mowers coupled together where each lawn mower includes its own power source. This makes the entire system expensive and impractical.

Therefore, there has been and continues to be a need for an economical and practical gang-type lawn mower system that can be pulled by a conventional garden tractor or small farm tractor.

SUMMARY OF THE INVENTION

The present invention entails a gang-type lawn mower system adapted to be pulled by a garden tractor or small farm tractor. The system includes a frame structure and a plurality of unpowered mower decks mounted to the frame structure. Secured to the frame structure is a single power source such as an internal combustion engine. A drive train is interconnected between the power source and each of the mower decks for transferring torque or power from the power source to the respective mower decks.

In one particular embodiment, the drive train includes a single drive belt that is trained around a pulley or sheave mounted to an output shaft of the power source. From the sheave or pulley associated with the power source, the belt extends around a number of pulleys or sheaves

associated with the mower deck. Therefore, as the output shaft of the power source is driven, one or more blades associated with each mower deck is likewise driven.

Also, the present invention entails a method for setting up a pull-type gang lawn mower system. This method entails securing at least two spaced-apart unpowered mower decks to a pull-type frame structure. To power the mower decks, a single power unit is mounted on the frame structure and drivingly interconnected with each of the lower decks. Therefore, as the pull-type lawn mower system is pulled over the ground, the spaced part mower decks are powered by the single power source. Thus, each of the unpowered mower decks is operative to cut grass or vegetation as the system is pulled over the ground.

The gang type lawn mower system also includes a wheel supported main frame or power source frame having a power source mounted thereon. At least two mower decks are movably connected to the main frame with each mower deck being movable between an operative lower position where the mower deck is operative to cut grass and an elevated stowed position where at least a portion of the mower deck overlies a portion of the main frame. A drive is interconnected between the power source and each of the mower decks such that each mower deck is powered by the power source mounted on the main frame.

In one particular embodiment of the present invention, the mower decks are pivotally connected along opposite sides of the main frame and to place the mower decks in the elevated stowed position, the mower decks are pivoted inwardly towards the main frame such that a portion of each mower deck lies over a portion of the main frame and wherein the underside of the mower decks face outwardly or at least partially upwardly.

In another embodiment of the present invention, the gang type lawn mower system is

provided with a belt drive that extends between the power source of the main frame and each of the mower decks. To maintain tension on the drive belt or belts, there is provided a belt tensioner device that tends to bias or at least slightly push each mower deck outwardly from the main frame.

In another embodiment of the present invention, each of the mower decks can pivot with respect to the main frame. Therefore, as the lawn mower system moves over undulations, the mower decks can at least slightly float or move with respect to the main frame. There is provided with the lawn mower system of the present invention a device that will engage the mower decks and limit their movement. In one particular embodiment, there is provided an arm pivotally mounted to the main frame and extending outwardly therefrom for engaging the mower deck, directly or indirectly, wherein the engagement of the arm limits the movement of the mower deck with respect to the main frame.

Other objects and advantages of the present invention will become apparent and obvious from a study of the following description and the accompanying drawings, which are merely illustrative of such invention.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a perspective view of the gang-type lawn mower system of the present invention.

Figure 2 is a top plan view of the lawn mower system with portions removed to illustrate the drive train between the power source and the respective mower decks.

Figure 3 is a fragmentary side elevational view illustrating the movement of a mower deck about a transverse axis.

Figure 4 is a fragmentary elevational view illustrating the movement of the mower deck about a longitudinal axis.

Figure 5 is a top plan view of a second embodiment for the lawn mower system of the present invention.

Figure 6 is a schematic elevational view of the lawn mower system of Figure 5.

Figure 7 is a schematic elevational view similar to Figure 6 but showing the mower decks floating with respect to the main frame.

Figure 8 is a schematic elevational view of the embodiment of Figure 5 showing one of the mower decks in an elevated stowed position.

Figure 9 is a schematic illustration showing the basic structure of the belt tensioner device of the present invention.

DESCRIPTION OF AN EXEMPLARY EMBODIMENT

With further reference to the drawings, the gang-type lawn mower system of the present invention is shown therein and indicated generally by the numeral **10**. Before providing a more detailed discussion of the individual components of the lawn mower system **10**, it may be beneficial to briefly review the main components, or subassemblies, of the lawn mower system. In that regard, lawn mower system **10** includes a frame structure indicated generally by the numeral **12**. As will be appreciated from subsequent portions of this disclosure, the frame structure **12** is adapted to be pulled behind a tractor, such as a conventional garden tractor or a small size farm tractor. Mounted to frame structure **12** in spaced apart relationship is a pair of mower decks indicated generally by the numerals **14** and **16**. Each mower deck is mounted to the frame structure **12** such that the mower deck can float or move with respect to the frame

structure as the entire lawn mower system **10** traverses the ground. More particularly, each mower deck **14** and **16** is designed to pivot or move about both a transverse axis and a longitudinal axis. A power source **18** is mounted to the frame structure **12** and adapted to drive the mower decks **14** and **16**. A drive train indicated generally by the numeral **20** is interconnected between the power source **18** and the respective mower decks **14** and **16**. As will be appreciated from subsequent portions of this disclosure, the drive train **20** includes a drive belt and a series of sheaves that are together operative to transfer power from the power source **18** to the respective mower decks **14** and **16**.

Turning to the frame structure **12**, the frame structure **12** includes a front section that comprises a lower transverse member **32** and an upper transverse member **34**. A pair of diagonal braces **36** extend from the outward ends of the lower transverse member **32** upwardly to where they join the upper transverse member **34**. A pair of laterally spaced vertical members **33** extend upwardly from the lower transverse member **32** to the upper transverse member **34**. Extending outwardly from the front section of the frame structure **12**, on each side of the lawn mower system **10**, is a bumper **37**. Bumper **37** generally curls around the front portion of each mower deck **14** and **16** and generally protects the mower deck from impacting against trees, shrubs, fence posts and the like. Extending forwardly from the lower transverse member **32** is an elongated tongue **38**. Tongue **38** is supported by a pair of upper tongue supports **40** that extend forwardly and inwardly from the vertical members **33**.

Frame structure **12** further includes a rear transverse member **42**. Connected between the rear transverse member **42** and the upper front transverse member **34** is a pair of longitudinal frame members **44** and **46**. Provided on the frame structure about the rear portion is a platform **48**. As will be appreciated from subsequent portions of this disclosure, platform **48** serves to

receive and support the power source **18**.

Frame structure **12** is wheel supported and is adapted to move over the ground while the mower decks **14** and **16** cut grass or other vegetation. Accordingly, frame structure **12** is provided with a pair of front wheels **54**. Additionally, there is provided a wheel arm **50** that is disposed about the rear of the frame structure **12** and extends downwardly from the upper portion of the frame structure **12**. A rear wheel **52** is mounted to the lower terminal end of the wheel arm **50**.

Each of the mower decks **14** and **16** are movable mounted to the frame structure **12**. That is, each of the mower decks **14** and **16** can float and move up and down with respect to the frame structure **12** as the frame structure **12** and mower decks **14** and **16** traverse the ground. The front portion of the mower decks **14** and **16** are connected to the frame structure **12** about a generally transverse axis. This means that the rear portion of each of the mower decks **14** and **16** can float up and down about this transverse axis. Additionally, each mower deck **14** and **16** is connected to the frame structure **12** about a longitudinal axis, which permits the respective mower decks **14** and 16 to tilt or float from side to side.

Turning to the mower decks **14** and **16**, each mower deck includes a housing **60**. Although not specifically shown, each housing houses one or two rotary blades. Rotatively mounted to the front of the housing **60** is pair of front wheels **62**. Disposed about the rear portion of each housing **60** is a rear wheel **64** that forms a part of a height adjustment assembly.

As noted earlier, the front of each mower deck **14** and **16** is pivotally connected to the frame structure **12**. In particular, this front connection is achieved by a front pivot connector indicated generally by the numeral **66**. Connector **66** includes a pair of spaced apart plates **66a** that extend rearwardly from the lower transverse member **32**. Further, there is provided a pair of

plates **66b** that extend forwardly from the front of each mower deck **14** and **16**. A pivot pin **66c** interconnects the plates **66a** and **66b** and forms a generally transverse axis with respect to the direction of travel of the frame structure **12**.

Further, an intermediate portion of each mower deck **14** and **16** is coupled or attached to the frame structure **12**. As illustrated in Figure 1, there is a longitudinal pivot connection between each mower deck **14** and **16** and the frame structure **12**. This pivot connection comprises an upright support **70** that extends upwardly from the top of a respective mower deck. Adjacently disposed is a frame connector **72** that extends from the frame structure **12**. A pivot pin **74** interconnects the frame connector **72** with the upright support **70**, thereby pivotally mounting the entire mower deck **14** or **16** to the frame structure **12**.

Mounted on the frame structure **12** is a power source. More particularly, the power source is mounted on platform **48**. As seen in the drawings, the platform **48** and the power source **18** are disposed about a central rear portion of the frame structure. Because of the weight of the power source **18**, this tends to cause the center of gravity of the entire structure shown in Figure 1 to be located toward the central rear portion of the lawn mower system **10**.

Power source **18** is, in a preferred embodiment, in the form of an internal combustion engine **80**. Details of the internal combustion engine **80** and its components are not dealt with \because such is not, per se, material to the present invention and because such internal combustion engines are well known and appreciated by those skilled in the art. Nevertheless, as seen in the drawings, the internal combustion engine includes a gas tank **82** and a battery **84**. Further, extending downwardly from the lower portion of the internal combustion engine **80** is an output drive shaft **86**.

Turning now to the drive train **20** of the present invention, the drive train includes an

engine drive sheave **90** secured to the output shaft **86** of the internal combustion engine **80**. Disposed adjacent the drive sheave **90** is an idler sheave **91**. See Figure 2. Disposed on each mower deck **14** and **16** is a pair of drive sheaves **92** and **94**. Each drive sheave **92** and **94** is operatively connected to a shaft that extends through the mower deck and connects to a rotary blade. Therefore, by driving the drive sheaves **92** and **94** on each mower deck, the rotary blades housed within the respective mower deck is driven. In addition to the drive sheaves **92** and **94**, there is rotatively mounted on each mower deck a clutch sheave **98**. Clutch sheave **98** is bodily movable between engaged and disengaged positions. The movement of each clutch sheave **98** is controlled by a clutch handle **100**. As viewed in Figure 2, each clutch handle **100** is movable laterally back and forth and in the process moves the connected clutch sheave **98** between engaged and disengaged positions. Therefore, when the internal combustion engine **80** is cranked, for example, the clutch handle **100** is positioned such that the clutch sheave **98** is in a disengaged position. Further, there is provided any number of idler sheaves **102**. In this case, as viewed in Figure 2, there is provided an idler sheave **102**.

The drive train further includes a pair of jackshafts with each jackshaft being mounted adjacent a respective mower deck. Each jackshaft includes a driven sheave **96**. As seen in Figure 2, the driven sheaves **96** are mounted to the top of the jackshaft. Secured below the driven sheaves **96** on each jackshaft is another sheave (not shown), referred to as the jackshaft drive sheave.

There is provided a series of three belts **104, 106, 108** that transfer power from the power source **18** to the drive sheaves **92** and **94** mounted on the mower decks **14** and **16**. More particularly, drive belt **104** is trained around the drive sheave **90** mounted to the output shaft **86** of the power source **18**. From drive sheave **90**, belt **104** is trained around idler sheave **91** and

then extends around the driven sheave **96** mounted to the top of the respective jackshafts. Therefore, as the output shaft **86** of the power source **18** turns, it follows that the drive sheave **90** drives the main drive belt **104** which through the driven sheaves **96** drive the pair of jackshafts.

Driving torque associated with the jackshafts and the jackshaft drive sheaves is in turn imparted to the drive sheaves **92** and **94** on the mower decks **14** and **16** by the other two belts **106** and **108**. Viewing mower deck **14** and Figure 2, it is seen that belt **106** is trained around the lower sheave on the jackshaft (the jackshaft drive sheave) and thereafter extends around the clutch sheave **98** and the two drive sheaves **92** and **94** on the mower deck. Therefore, as the power source **18** is operated, the driving torque associate therewith is transferred from its output shaft **86** to the shafts driven by the sheaves **92** and **94**, which in turn drive the blades within the housings **60**.

The lawn mower system **10** of the present invention has many advantages. Among the advantages is that both mower decks are driven by a single power source **18**. In the case of the embodiment illustrated herein, there is provided two mower decks but it is understood that the frame structure could carry more than two mower decks.

As seen in Figure 2, the internal combustion engine **80** is mounted about the rear of the frame structure **12** and generally centrally between the outboard ends of the entire lawn mower system **10**. This effectively places the center of gravity of the entire system **10** about the central and rear portion of the entire structure. This enables the tongue **38** to be lifted and the entire lawn mower system rotated to an upright position where the engine **80** rests adjacent the ground and the mower decks **14** and **16** lie in a vertical plane. In this configuration, the rotary blades within the housings **60** are easy to service and maintain. Further, the entire system **10** can be

serviced when assuming this position.

In the end, the lawn mower system **10** of the present invention is relatively simple in design, practical and relatively inexpensive. By coupling a number of unpower mower decks to a trailing frame structure and simply utilizing a single power source to drive each of the mower decks, enables a home owner or small farmer to mow a substantial area of lawn or pasture without investing substantial money in a more expensive and complicated mowing system. Further, the individual mower decks **14** and **16** are coupled to the frame structure in a way that enables the mower decks to float and move with respect to the frame structure and to provide an even and uniform cut.

In Figures 5-9 a second embodiment for the lawn mower system of the present invention is shown therein and indicated generally by the numeral **200**. Lawn mower system **200** is adapted to be pulled behind a tractor **206** and basically comprises a main frame or power source frame indicated generally by the numeral **202** and, in the case of the particular embodiment shown herein, includes two mower decks indicated generally by the numeral **204**. As will be appreciated from subsequent portions of this disclosure, the main frame supports an internal combustion engine which in turn drives the two mower decks **204** disposed on opposite sides of the main frame **202**. In the embodiment illustrated herein, the main frame **202** lies centrally behind the tractor **206** and lies between the two mower decks **204**. As such, in this particular embodiment the main frame does not include a blade and therefore it does not cut grass or vegetation that it traverses. In this particular embodiment, the tractor **206** is provided with a belly mounted mower that cuts a swath of grass that underlies the tractor **206** and which would accordingly correspond to the area traversed by the main frame **202**.

Turning to a more detailed discussion of the lawn mower system **200**, the main frame **202**

includes an upper platform **210**. Platform **210** may be square or rectangular or other shapes for that matter. Platform **210**, as seen in Figure 5, includes a front portion, a rear portion and a pair of opposed side portions.

Mounted on the front portion of the main frame **202** is a pair of spaced apart caster wheels **212**. Mounted to the rear of the main frame **202** is a pair of conventional rear wheels **214**. It will be appreciated by those skilled in the art that the height of these wheels with respect to the platform **210** can be adjusted. Further, there is provided a tongue **216** that projects forwardly from the front portion of the main frame **202** to where a portion of the upper tongue is adapted to connect to the tractor **206**. The tongue **216** can assume various designs and can be adjustable in various ways.

Mounted on the platform **210** of the main frame **202** is a power source **220**. In the case of the design shown in Figures 5-9, the power source **220** is in the form of an internal combustion engine. As seen in Figure 6, for example, the internal combustion engine **220** is mounted to the platform **210** and projects upwardly therefrom. Extending from the internal combustion engine **220** downwardly through the platform **210** is a drive shaft **222**. Secured to the drive shaft **222** and rotatable therewith is a pair of drive sheaves **224** and **226**. Although not particularly shown, the lawn mower system 10 could be provided with a mechanical clutch, such as a centrifugal clutch which could control the engagement and disengagement of a belt drive, to be described hereafter.

Turning to the mower decks **204**, each mower deck includes a housing **230**. Provided on the outboard side of each housing **230** is a pair of wheels, a front wheel **232** and a rear wheel **232**. Both of these wheels can be adjusted with respect to the housing **230**. Rotatively journaled within the housing **230** is a drive shaft **234**. Drive shaft **234** is rotatively contained within a

bearing assembly which is indicated schematically at **242**. Secured to the upper end of the drive shaft **234** is a driven sheave **236**. The lower portion of the drive shaft **234** connects directly to a rotary blade **238**. Secured to the top of the housing **230** adjacent the drive shaft **234** is a belt guide **240**. Note in the drawing that belt guide **240** is secured to the top of the housing **230** and extends upwardly therefrom to where the belt guide includes a pair of vertically spaced projections that extend over and under the adjacent driven sheave **236**.

As will be discussed subsequently herein, each mower deck **204** is movably connected to the main frame **202**. To provide for this connection, each mower deck **204** includes a pair of upstanding connectors **244** that are disposed on the inboard side of the mower deck **204**. The connectors **244** are spaced apart with one connector being disposed about the front portion of the housing **230** while another connector is disposed about the rear portion of the housing **230**. In any event, the connectors **244** are aligned along one side of each mower deck **204**.

A drive or drive assembly is interconnected between the power source **220** and the respective mower decks **204**. In this case, a belt drive assembly is provided. However, it should be understood that other type of drives such as a drive shaft or a hydraulic drive could be provided. In the embodiment illustrated in Figures 5-9, the drive comprises a pair of drive belts **250A** and **250B**. Note in Figure 6 where drive belt **250A** is trained around the upper drive sheave **224** associated with the power source **220** and is also trained around the drive sheave **236** which, as viewed in Figure 6, is associated with the mower deck **204** disposed on the right side of the main frame **202**. In like fashion, the lower drive belt **250B** is connected between the lower drive sheave **226** associated with the power source **220** and the drive sheave **236** associated with the mower deck **204** disposed on the left side of the main frame **220**, again as viewed in Figure 6. Therefore, it is appreciated that the driving torque produced by the power source **220** and

outputted through the drive shaft **222** associated with the power source **220** is transferred to the blades **238** of the respective mower decks **204**.

As discussed herein before, the mower decks **204** are pivotally connected to opposed sides of the main frame **202**. In this case, there is provided a front connection and a rear connection. As seen in Figure 5, a rear crossbar **260** is secured to the main frame **202** and is pivotally connected to each of the rear connectors **244** that extend upwardly from a rear portion of the respective platforms **210**. The rear crossbar **260** is pivotally connected to the rear connectors **244** by a pair of pivot pins. This connection allows the respective mower decks to pivot upwardly and downwardly with respect to the main frame **202**, but generally prevents the mower decks **204** from moving side to side with respect to the main frame **202**.

There is also a front connection that exists between the main frame **202** and each of the mower decks **204**. However, the front connection is made at least partially through a belt tensioner assembly. As can be seen from viewing Figures 6-9, the front portions of the respective mower decks **204** are permitted to move at least slightly outwardly and inwardly with respect to the main frame **202**. This is achieved through a belt tensioner indicated generally by the numeral **270** and shown particularly in Figure 9. But as can be seen from the drawings, the belt tensioner **270** provides for pivotal movement of the mower deck **204** with respect to the main frame **202** but also includes a pivotable connection that is aligned with the pivot connections just described with respect to the rear crossbar **260** that again permits the mower decks **204** to pivot up and down with respect to the main frame **202**.

Turning to the belt tensioner **270**, the same includes an elongated sleeve **272** that extends across the front portion of the main frame **202** and is connected thereto. Outer portions of the sleeve **242** project on over to an area adjacent the front portion of each of the mower decks **204**.

Provided in the elongated sleeve **272** is a pair of stops **274**. A pair of coil springs **282** are contained within the sleeve **272**. Each coil spring **282** extends from one stop **274** outwardly therefrom. Also contained in each end of the sleeve **272** is a movable member **276** which could be in the form of a shaft, tube or other type of stock. Each member **276** includes an outboard end that extends from the sleeves **272** and is connected to a front connector **244** extending up from the mower deck **204** by a pivot pin connection **278**. Pivot pin connections **278** are generally aligned with the pivot connections that exist about the rear of the mower decks **204**. This, of course, permits each mower deck **204** to pivot or rotate about a longitudinal axis that extends longitudinally along the inboard side of each mower deck **204**.

Belt tensioner **270** functions to maintain an appropriate degree of tension on the belt drives **250A** and **250B**. That is, the springs **282** engage the movable members **276** in the sleeve **272** and tend to bias or push the movable members **276** outwardly. In the process, the front connectors **244** as shown in Figure 9 also tend to be pushed outwardly. While the springs **282** bias the mower decks **204** outwardly it should be appreciated that this biasing action is generally limited. The size and strength of the springs **282** are selected to limit the biasing action. Further the belts **250A** and **250B** restrict the degree of movement of the mower decks **204** with respect to the main frame **202**. However, the design is intended to supply sufficient biasing forces to maintain a proper belt tension within the two drive belts **250A** and **250B**.

Further, the gang type lawn mower system of the present invention is provided with a pair of belt guards **290**. As shown in Figures 5 and 6, each belt guard **290** is pivotally connected to the main frame **202** and extends outwardly therefrom over a portion of each mower deck **204**. In particular, each belt guard assumes a general L-shape. As such the belt guard **290** at least partially encloses the respective belts about the top and the outer sides.

Belt guards **290** are particularly configured with respect to the main frame **202** and the respective mower decks **204** to limit the degree of pivotable movement of the respective mower decks when the mower decks assume the lowered operative position shown in Figures 6 and 7. It is anticipated that in normal operations that the mower decks should have the capacity or ability to pivot approximately 15° with respect to the main frame **202** as the lawn mower system **200** traverses the ground. However, it may be beneficial to limit the pivotal movement during operation to approximately no more than 15° to 20°. In any event, the belt guards are configured to cooperate with adjacent structure to limit the pivotal movement of the respective mower decks during normal operation. This is illustrated in Figure 7. Note that when each respective mower deck **204** tilts a certain amount, that the outer portions of the belt guards **290** will engage the belt guides **240**. This engagement will cause the belt guards **290** to act as a stop and will prevent the mower decks from continuing to pivot either upwardly or downwardly with respect to the main frame **202** past a predetermined angle which, as referred to above, could be in the range of 15° to 20°.

One feature of the present invention is that the mower decks **204** can be pivoted upwardly to an elevated and stowed position. This is illustrated in Figure 8 with respect to the mower deck **204** disposed on the right side of the main frame. When the mower deck **204** is pivoted upwardly to the stowed position shown therein, it is seen that a portion of the mower deck **204** overlies at least a portion of the main frame **202**. That is, as seen in Figure 8, the mower deck **204** disposed in the stowed position has been rotated counterclockwise through an angle greater than 90°. Thus the underside of the mower deck is said to face outwardly or at least partially upwardly. In the case of the embodiment of Figures 5-9, it is seen that prior to rotating the mower deck **204** to the stowed position, again as shown in Figure 8, the overlying belt guard **290**

is lifted and rotated to a stowed position. The structure of the lawn mower system **10** can be designed such that the degree of rotation afforded to the respective mower decks **204** can vary. For example, the configuration of the components can be varied such that the mower deck **204**, as shown in Figure 8 in the elevated and stowed position, could be further rotated counterclockwise. This is simply a matter of changing various structural dimensions.

Therefore, it is appreciated that the gang type lawn mower system **10** shown in Figures 5-9 is of a light weight and compact design. Indeed, when the mower units or mower decks **204** are pivoted to the elevated stowed position, the entire lawn mower system can fit in a small space and can be easily stored or transported from one location to another location.

The present invention may, of course, be carried out in other specific ways than those herein set forth without departing from the scope and the essential characteristics of the invention. The present embodiments are therefore to be construed in all aspects as illustrative and not restrictive and all changes coming within the meaning and equivalency range of the appended claims are intended to be embraced therein.